

IN THE CLAIMS

1. (Currently amended) Apparatus for use in managing a service level associated with resources in a distributed information technology (IT) system based on financial terms, the apparatus comprising:

at least one processor operative to: (i) construct and maintain an electronic contract that contains information pertaining to descriptions of one or more business transactions in IT terms, financial implications of one or more business transaction service levels, and reporting to be performed in one or more financial terms; (ii) measure at least one service level of at least one distributed element of the IT system in terms of one or more business metrics based on the electronic contract and based at least in part on input received from at least one agent module located in the at least one distributed element; (iii) determine at least one financial optimization based at least in part on the measured at least one service level of at least one element of the IT system and based at least in part on the electronic contract, the financial optimization being specified in the electronic contract at the time of construction such that, at the time the financial optimization is to be determined, the electronic contract is accessed to identify a particular financial metric of the financial optimization that is to be computed and to identify an operation for computing the particular financial metric, the one or more business metrics are converted to one or more financial equivalents wherein the one or more financial equivalents comprise a cost of a lost connection, a cost of down time, and a relationship between revenue and network latency; and (iv) issue at least one control command based on the at least one financial optimization, the command to be executed on the at least one distributed element by the at least one agent module located in the at least one distributed element; and

memory, operatively coupled to the at least one processor, for storing at least one of the electronic contract and results of the measurement operation.

2. (Original) The apparatus of claim 1, wherein the measuring operation comprises monitoring one or more IT parameters and evaluating results in terms of the one or more business metrics.

3. (Original) The apparatus of claim 2, wherein the evaluating operation is performed in real time or at a subsequent time.
4. (Original) The apparatus of claim 1, wherein the measuring operation comprises accumulating a historical collection of IT data and evaluating results in terms of the one or more business metrics.
5. (Original) The apparatus of claim 1, wherein the measuring operation comprises collecting measurement data from one or more sources, combining the collected measurement data, and interpreting the collected measurement data in terms of the one or more business metrics.
6. (Original) The apparatus of claim 1, wherein the measurement operation comprises monitoring hardware characteristics of the IT system.
7. (Original) The apparatus of claim 6, wherein the hardware characteristics comprise at least one of temperature and power consumption.
8. (Original) The apparatus of claim 1, wherein the measurement operation comprises monitoring software characteristics of the IT system.
9. (Original) The apparatus of claim 8, wherein the software characteristics comprise at least one of bandwidth usage, availability, response time, and latency.
10. (Original) The apparatus of claim 1, wherein the IT system comprises a collection of hardware and software intended to store or deliver data in a digital form.

11. (Original) The apparatus of claim 1, wherein the one or more business metrics comprise a measurement that directly measures the performance of a business.

12. (Previously presented) The apparatus of claim 12, wherein the measurement comprises at least one of an operational cost, customer satisfaction, and relative industry performance.

13. (Canceled)

14. (Canceled)

15. (Original) The apparatus of claim 1, wherein results of the one or more business metrics are used to set IT parameters.

16. (Original) The apparatus of claim 1, wherein the one or more business metrics are reported to one or more parties.

17. (Original) The apparatus of claim 1, wherein the one or more business metrics are aggregated so as to obscure details reported to a third party.

18. (Original) The apparatus of claim 1, wherein reporting is performed in financial terms based on the electronic contract.

19. (Original) The apparatus of claim 1, wherein enactment is performed based on financial optimizations using the electronic contract.

20. (Original) The apparatus of claim 1, wherein the one or more business metrics to monitor are inferred from the electronic contract.

21. (Currently amended) Computer-based apparatus for use in managing a service level associated with resources in a distributed information technology (IT) system based on financial terms, the apparatus comprising:

an electronic contract manager module, executed by a processor of a computer, operative to construct and maintain an electronic contract that contains information pertaining to descriptions of one or more business transactions in IT terms, financial implications of one or more business transaction service levels, and reporting to be performed in one or more financial terms and to determine at least one financial optimization based at least part on the measured at least one service level of at least one element of the IT system and based at least in part on the electronic contract, the financial optimization being specified in the electronic contract at the time of construction such that, at the time the financial optimization is to be determined, the electronic contract is accessed to identify a particular financial metric of the financial optimization that is to be computed and to identify an operation for computing the particular financial metric, the one or more business metrics are converted to one or more financial equivalents wherein the one or more financial equivalents comprise a cost of a lost connection, a cost of down time, and a relationship between revenue and network latency; and

one or more electronic contract agent modules, executed by the processor of the computer, operatively coupled to the manager module and located in one or more distributed elements of the IT system being monitored, operative to measure at least one service level of at least one distributed element of the IT system in terms of one or more business metrics based on the electronic contract and to execute at least one control command based at least in part on at least on the at least one distributed element.

22. (Original) The apparatus of claim 21, further comprising an electronic contract authoring system, operatively coupled to the manager module, operative to construct one or more electronic contracts that contain information pertaining to descriptions of one or more business transactions in IT terms, financial implications of one or more business transaction service levels, and reporting to be performed in the one or more financial terms.

23. (Original) The apparatus of claim 21, wherein the manager module is further operative to: (i) identify one or more business transactions; (ii) compute one or more transaction service levels; and (iii) compute one or more business metrics based on the one or more service levels; and (iv) reporting results associated with the one or more business metrics.

24. (Original) The apparatus of claim 21, wherein the manager module is further operative to: (i) identify one or more business transactions; (ii) forecast the one or more transactions over an enactment interval; (iii) predict performance and determine optimizations based on financial criteria; and (iv) initiate actions based on the predicted performance and the determined optimizations.

25. (Currently amended) A computer-based method for use in managing a service level associated with resources in a distributed information technology (IT) system based on financial terms, the method comprising the steps of:

automatically constructing and maintaining, via a processor of a computer, an electronic contract that contains information pertaining to descriptions of one or more business transactions in IT terms, financial implications of one or more business transaction service levels, and reporting to be performed in one or more financial terms;

automatically measuring, via the processor of the computer, the operation of at least one distributed element of the IT system in terms of one or more business metrics based on the electronic contract and based at least in part on input received from at least one agent nodule located in the at least one distributed element;

automatically determining, via the processor of the computer, at least one financial optimization based at least part on the measured one or more business metrics of the at least one distributed element of the IT system and based at least in part on the electronic contract, the financial optimization being specified in the electronic contract at the time of construction such that, at the time the financial optimization is to be determined, the electronic contract is accessed to identify a particular financial metric of the financial optimization that is to be computed and to identify an

operation for computing the particular financial metric, the one or more business metrics are converted to one or more financial equivalents wherein the one or more financial equivalents comprise a cost of a lost connection, a cost of down time, and a relationship between revenue and network latency; and

automatically issuing, via the processor of the computer, at least one control command based on the at least one financial optimization, the command to be executed on the at least one distributed element by the at least one agent module located in the at least one distributed element.

26. (Original) The method of claim 25, wherein the measuring step comprises monitoring one or more IT parameters and evaluating results in terms of the one or more business metrics.

27. (Original) The method of claim 25, wherein the measuring step comprises accumulating a historical collection of IT data and evaluating results in terms of the one or more business metrics.

28. (Original) The method of claim 25, wherein the measuring step comprises collecting measurement data from one or more sources, combining the collected measurement data, and interpreting the collected measurement data in terms of the one or more business metrics.

29. (Original) The method of claim 25, wherein the measurement operation comprises monitoring at least one of hardware and software characteristics of the IT system.

30. (Original) The method of claim 25, wherein the IT system comprises a collection of hardware and software intended to store or deliver data in a digital form.

31. (Original) The method of claim 25, wherein the one or more business metrics comprise a measurement that directly measures the performance of a business.

32. (Canceled)

33. (Original) The method of claim 25, wherein results of the one or more business metrics are used to set IT parameters.

34. (Original) The method of claim 25, wherein the one or more business metrics are reported to one or more parties.

35. (Original) The method of claim 25, wherein the one or more business metrics are aggregated so as to obscure details reported to a third party.

36. (Original) The method of claim 25, wherein reporting is performed in financial terms based on the electronic contract.

37. (Original) The method of claim 25, wherein enactment is performed based on financial optimizations using the electronic contract.

38. (Original) The method of claim 25, wherein the one or more business metrics to monitor are inferred from the electronic contract.

39. (Currently amended) An article of manufacture for use in managing a service level associated with resources in a distributed information technology (IT) system based on financial terms, comprising a machine readable storage medium containing one or more programs which when executed implement the steps of:

automatically constructing and maintaining an electronic contract that contains information pertaining to descriptions of one or more business transactions in IT terms, financial implications of one or more business transaction service levels, and reporting to be performed in one or more financial terms;

automatically measuring the operation of at least one distributed element of the IT system in terms of one or more business metrics based on the electronic contract and based at least in part on input received from at least one agent module located in the at least one distributed element;

automatically determining at least one financial optimization based at least part on the measured one or more business metrics of the at least one distributed element of the IT system and based at least in part on the electronic contract, the financial optimization being specified in the electronic contract at the time of construction such that, at the time the financial optimization is to be determined, the electronic contract is accessed to identify a particular financial metric of the financial optimization that is to be computed and to identify an operation for computing the particular financial metric, the one or more business metrics are converted to one or more financial equivalents wherein the one or more financial equivalents comprise a cost of a lost connection, a cost of down time, and a relationship between revenue and network latency; and

automatically issuing at least one control command based on the at least one financial optimization, the command to be executed on the at least one distributed element by the at least one agent module located in the at least one distributed element.